

THE CONCEPT OF CARRYING CAPACITY

The increasing visitation to the national park system is making it more difficult for the National Park Service to fulfill its dual mission to provide for the enjoyment of national parks while conserving resources for future generations. Concern over rising visitation in parks, and accompanying impacts on resources and on visitor experience, has led the National Park Service to focus increasing attention on the concept of carrying capacity.

The Concept of Carrying Capacity

The underlying concept of carrying capacity has a rich history in the natural resource professions. In particular, it has proven a useful concept in wildlife and range management where it refers to the number of animals of any one species that can be maintained in a given habitat. Carrying capacity has obvious parallels and intuitive appeal in the field of park management. In fact, it was first suggested in the mid-1930s as a park management concept in the context of the national park system. However, the first rigorous application of carrying capacity to park planning and management did not occur until the 1960s.

The initial scientific applications of carrying capacity in parks focused on the impacts on park resources resulting from visitor use. It soon became apparent, however, that there was another dimension of carrying capacity dealing with the social aspects of the visitor experience. In the 1964 monograph *The Carrying Capacity of Wild Lands for Recreation*, J. A. Wagar reported that his study was initiated with the view that the carrying capacity of recreation lands could be determined primarily in terms of ecology and the deterioration of areas. However, it soon became obvious that the resource-oriented point of view must be augmented by consideration of human values.

The point was that as more people visit a park, both the natural and cultural resources of the area and the quality of the visitor experience can be affected. Through the years it has become evident that there is a conflict between Park Service efforts to encourage the use of parks by making them more accessible to more people, and its efforts to ensure that park resources are protected and opportunities for quality visitor experience are provided.